CLAIMS

1. An antenna device comprising:

a grounding board having an edge;

an antenna provided on the grounding board, the antenna including

a dielectric block having a top surface, a bottom surface opposite to the top surface, and a side surface connected to the top surface and the bottom surface, the top surface having an outer periphery,

a radiator electrode provided on the top surface,

a short-circuit electrode provided on the side surface, the short-circuit electrode having a first end and a second end, the first end of the short-circuit electrode being connected to the grounding board, the second end of the short-circuit electrode being connected to the radiator electrode, and

a feeding electrode provided on the side surface and connected to the radiator electrode, wherein the bottom surface of the dielectric block contacts the grounding board,

wherein the outer periphery of the top surface of the dielectric block has a first side at which the top surface is connected with the side surface,

wherein the radiator electrode includes

a short-circuited end connected to the second end of the short-circuit electrode, and

a portion extending from the short-circuited end along the outer periphery of the top surface of the dielectric block, the portion of the radiator electrode having an open end located at the first side of the dielectric block, and

wherein the side surface of the dielectric block is substantially flush with the edge of the grounding board.

2. The antenna device of claim 1, wherein a width of the open end of the radiator electrode is greater than a width of the short-circuited end of the radiator electrode.

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3. The antenna device of claim 1,

wherein the outer periphery of the top surface of the dielectric block further has a second side opposite to the first side; and

wherein the radiator electrode further includes

a first portion extending along the second side, and

a second portion extending along the first side.

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4. The antenna device of claim 3,

wherein the outer periphery of the top surface of the dielectric block further has

a third side connected to the first side and the second side of the outer periphery, and

a fourth side connected to the first side and the second

21 side, the fourth side of the outer periphery being opposite to the third side of the outer periphery,

wherein the radiator electrode further includes

a third portion extending from the short-circuited end along the third side, and

a fourth portion extending along the fourth side,

wherein the first portion extends from the third portion to the

fourth portion; and

wherein the second portion extends from the fourth portion.